

## **I. Listing of Claims**

1. (Previously Presented): A retrievable filter for filtering solid and semi-solid materials from a liquid moving axially in a generally tubular vessel of a mammal comprising:

a) a filter comprising an apical hub and a plurality of divergent legs including first and second ends, at least one of the plurality of divergent legs being secured at the first end to the apical hub;

b) a first attachment member separate from, but attached to the second end of at least one of the plurality of divergent legs;

c) a stent; and

d) a second attachment member separate from, but attached to the stent, the first and second attachment members being separate from, but attachable to one another to releasably attach the filter to the stent.

2. Canceled.

3. (Previously Presented): The retrievable filter of claim 1 wherein the stent is configured to engage a wall of the generally tubular vessel and become incorporated by endothelial tissue.

4. Canceled.

5. Canceled.

6. Canceled.

7. Canceled.

8. (Previously Presented): The retrievable filter of claim 1 further comprising a retention force capable of withstanding the liquid moving axially in the generally tubular vessel and a retrieval force to detach the filter from the stent, wherein the retention force is greater than the retrieval force.

9. (Previously Presented): The retrievable filter of claim 1 wherein the filter is configured to maintain its structure when the filter is detached from the stent.

10. (Currently Amended): The retrievable filter of claim 1 wherein the filter is configured to maintain its structure when the ~~stent-attachment-means~~ first attachment member is detached from the ~~filter-attachment-means~~ second attachment member.

11. (Previously Presented): The retrievable filter of claim 1 wherein the filter is configured to avoid contact with the generally tubular vessel.

12. (Currently Amended): The retrievable filter of claim 1 wherein the ~~locking-mechanism~~ at least one of the first attachment member and the second attachment member is configured to position the filter to avoid contact with the generally tubular vessel.

13. (Currently Amended): The retrievable filter of claim 1 wherein the ~~locking-mechanism~~ at least one of the first attachment member and the second attachment member is configured to position at least one of the plurality of divergent legs to avoid contact with the generally tubular vessel.

14. Canceled.

15. Canceled.

16. (Currently Amended): The retrievable filter of claim 1 wherein the ~~locking-mechanism~~ at least one of the first attachment member and the second attachment member is configured to avoid contact with the tubular vessel.

17. Canceled.

18. (Previously Presented): The retrievable filter of claim 1 wherein the stent is a square stent.

19. Canceled.

20. (Previously Presented): The retrievable filter of claim 1 wherein the stent is self-expanding.

21. Cancelled.

22. (Currently Amended): The retrievable filter of claim 1 wherein the filter-attachment means first attachment member and the ~~stent-attachment means~~ second attachment member form an interference fit.

23. (Currently Amended): The retrievable filter of claim 1 wherein one of the filter-attachment means first attachment member and the ~~stent-attachment means~~ second attachment member comprises a cannula.

24. (Currently Amended): The retrievable filter of claim 1 wherein one of the filter-attachment means first attachment member and the ~~stent-attachment means~~ second attachment member comprises an attachment wire.

25. (Previously Presented): The retrievable filter of claim 24 wherein the attachment wire further comprises an extension of one of the filter and the stent.

26. (Previously Presented): The retrievable filter of claim 24 wherein the attachment wire further comprises a bend.

27. (Currently Amended): The retrievable filter of claim 24 wherein the attachment wire further comprises a ball and one of the filter-attachment means first attachment member and the ~~stent-attachment means~~ second attachment member further comprises a slot and a ball recess.

28. (Previously Presented): The retrievable filter of claim 24 wherein the attachment wire comprises a Y-shaped adapter.

29. (Previously Presented): The retrievable filter of claim 28 wherein the Y-shaped adapter further comprises a Y-shaped prong.

30. (Previously Presented): The retrievable filter of claim 24 wherein the attachment wire comprises a looped adapter.

31. (Previously Presented): The retrievable filter of claim 30 wherein the looped adapter further comprises a looped wire.

32. (Previously Presented): The retrievable filter of claim 24 wherein the attachment wire comprises a coiled adapter.

33. (Previously Presented): The retrievable filter of claim 32 wherein the coiled adapter further comprises a coil.

34. (Currently Amended): The retrievable filter of claim 1 wherein the locking-mechanism at least one of the first attachment member and the second attachment member further comprises a coiled locking-mechanism attachment member, the coiled locking-mechanism attachment member comprising at least one coil.

35. (Previously Presented): The retrievable filter of claim 34 wherein the at least one coil is formed from a shape memory alloy.

36. (Previously Presented): The retrievable filter of claim 1 wherein the retrievable filter is configured so that a user can decrease the force required to detach the filter from the stent to remove the filter.

37. (Currently Amended): The retrievable filter of claim 1 further comprising a retrieval connection point member and at least one attachment wire attached thereto;

wherein the at least one of the plurality of divergent legs further comprises at least one cannula and at least one lumen;

wherein the at least one attachment wire extends from the retrieval connection member and through the at least one lumen and ~~is attached at the retrieval connection point~~;

wherein the retrieval connection point member further comprises a hook;

wherein the hook is configured so that an upward motion applied to the hook disengages the at least one attachment wire of the ~~stent attachment means~~ first attachment member from the filter ~~attachment means~~ second attachment member.

38. (Previously Presented): The retrievable filter of claim 37 wherein the apical hub further comprises an apical hook.

39. (Previously Presented): The retrievable filter of claim 37 wherein the apical hub further comprises a locking ring.

40. (Currently Amended): A retrievable filter for filtering solid and semi-solid materials from a liquid moving axially in a generally tubular vessel of a mammal comprising:

a) a filter comprising a plurality of divergent legs each having an upstream end and a downstream end, each of the plurality of divergent legs further comprising a cannula and a lumen;

b) an apical hub connecting each of the downstream ends of the plurality of divergent legs;

c) a first attachment member separate from, but attached to at least one of the plurality of divergent legs, the first attachment member including at least one attachment wire, the at least one attachment wire extends through at least one

lumen of the plurality of divergent legs and is attached to at a retrieval connection point member;

d) a stent configured to engage a wall of the generally tubular vessel and become incorporated by endothelial tissue; and

e) a second attachment member separate from, but attached to the stent, the first and second attachment members being separate from, but attachable to one another to releasably attach the filter to the stent,

wherein an upward motion applied to the retrieval connection point member disengages the at least one attachment wire of the first attachment member from the second attachment member.

41. (Withdrawn): A method for positioning in a lumen at a desired implantation site the retrievable filter of claim 1 comprising the steps of:

advancing a guidewire into a lumen beyond the desired implantation site;

advancing a catheter comprising a dilating cannula and a sheath over the guidewire to the desired implantation site;

removing the dilating cannula and guidewire;

inserting the retrievable filter of claim 1 into the sheath and advancing the retrievable filter of claim 1 to the desired implantation site.

42. (Withdrawn): The method of claim 40 wherein the step of inserting the retrievable filter of claim 1 into the sheath and advancing the retrievable filter of claim 1 to the desired implantation site is performed using a second catheter.

43. (Withdrawn): A method for retrieving from a desired implantation site in a lumen the retrievable filter of claim 1 comprising the steps of:

advancing a guidewire into the lumen to the implantation site;

advancing a catheter over the guidewire to a retrieval connection point of the filter;

withdrawing the guidewire and advancing a retrievable loop through the catheter to the retrieval connection point of the filter;

grasping the retrieval connection point of the filter with the retrievable loop;

withdrawing the retrievable loop and the grasped retrieval connection point of the filter into the catheter and thereby causing locking mechanism to release filter from stent and collapsing filter within catheter.

44. (Previously Presented): A retrievable filter for filtering solid and semi-solid materials from a liquid moving axially in a generally tubular vessel of a mammal comprising:

a filter comprising an apical hub and a plurality of divergent legs including first and second ends, at least one of the plurality of divergent legs being secured at the first end to the apical hub;

a first attachment member separate from, but attached to the second end of at least one of the plurality of divergent legs;

a stent comprising a frame including a closed circumference, the frame having a plurality of sides interconnected by a series of bends, each bend including a coil; and

a second attachment member separate from, but attached to the stent, the first and second attachment members being separate from, but attachable to one another to releasably attach the filter to the stent, at least one of the plurality of divergent legs of the filter being releasably secured at the second end to at least one of the plurality of sides of the stent by the first and second attachment members, wherein the filter and the stent are releasably secured to one another between an unattached position in which the first and second attachment members are not attached to one another and an attached position in which the first and second attachment members attach to one another.